

Preface

Endocrine laboratory science: topics at the  
interface of clinical care and laboratory  
medicine



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*Guest Editor*

Laboratory medicine is truly at the interface of clinical endocrinology, physiology, biochemistry, and molecular biology. This is illustrated by many of the topics in this issue of the *Clinics in Laboratory Medicine*. For example, molecular diagnosis of multiple endocrine neoplasia type 2 centers on the detection of RET proto-oncogene mutations. We now understand that homozygosity for mutations in the autoimmune regulator (AIRE) gene cause autoimmune polyglandular syndrome type 1. The short distance between the research bench, the clinical endocrinologist, and the laboratory is illustrated in this issue's article on adipose tissue biology. Fat is a metabolically-active tissue that interacts with many organs in the body.

Traditional topics require frequent review. New developments in the measurement of growth hormone, testosterone species (eg, total, free, and bound), endocrine autoantibodies, thyroid hormones, thyroglobulin as a tumor marker, steroid hormone measurement (eg, by mass spectroscopy), catecholamine assessment (eg, free plasma metanephrines), and bone markers demand our attention. Intraoperative parathyroid hormone measurements have changed radically and have improved the surgical treatment of hyperparathyroidism. Even the heart is now an endocrine organ and many laboratories are measuring B-type natriuretic peptide (BNP) or N-terminal-proBNP. The limitations of endocrine assays are still a serious concern.

Human antimouse antibodies that interfere with two-site antibody assays are unpredictable and difficult to recognize.

It is the goal of this issue to excite and challenge the clinician and the laboratorian with the new developments in laboratory testing that affect adult and pediatric endocrinology. Few specialties are more dependent on the laboratory than clinical endocrinology. This demands that the laboratory provide accurate and precise measurements. Although immunoassays remain vital to the routine care of individuals who have endocrine disorders, molecular assays are growing in importance.

This issue should be of value to clinicians as well as laboratorians. I sincerely thank all of the authors for their hard work. I also would like to thank all of the staff at Elsevier for their overwhelming cooperation and support.

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